

USSN: 09/618,876

Docket No.: 55763US002

A/G, Cont

crystalline Al_2O_3 -rich spinel solid solution phase. The width of these phases observed in the polished section were up to about 1 micrometer.

In The Claims

A version marked up to show changes made to the claims relative to the previous version of the specification is attached.

Please amend claims 13-15 as follows:

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13. A plurality of abrasive particles having a specified nominal grade, said plurality of abrasive particle having a particle size distribution ranging from fine to coarse, wherein at least a portion of said abrasive particles is a plurality of fused, crystalline abrasive particles, said fused abrasive particles comprising at least 20 percent by volume, based on the total metal oxide volume of the respective particle, eutectic material, wherein said eutectic material comprises eutectic of at least:

(a) crystalline ZrO_2 and

(b) at least two of:

(i) crystalline Al_2O_3 ,

(ii) first crystalline complex $\text{Al}_2\text{O}_3 \cdot \text{Y}_2\text{O}_3$, or

(iii) second, different, crystalline complex $\text{Al}_2\text{O}_3 \cdot \text{Y}_2\text{O}_3$, wherein said fused, crystalline abrasive particles comprise at least 50 percent by volume, based on the total metal oxide volume of the respective particle, of said eutectic material, wherein the abrasive particles comprising, on a theoretical oxide basis, at least 40 percent by weight Al_2O_3 , based on the total metal oxide content of the respective particle, and wherein a portion of said complex $\text{Al}_2\text{O}_3 \cdot \text{Y}_2\text{O}_3$ Al cations are substituted with at least one cation selected from the following cations: Cr, Ti, Sc, Fe, Mg, Ca, Si, and Co.

14. A plurality of abrasive particles having a specified nominal grade, said plurality of abrasive particle having a particle size distribution ranging from fine to coarse, wherein at least a portion of said abrasive particles is a plurality of fused, crystalline abrasive particles, said fused abrasive particles comprising at least 20 percent by volume, based on the total metal oxide volume of the respective particle, eutectic material, wherein said eutectic material comprises eutectic of at least:

(a) crystalline ZrO_2 and